

Before
The Public Service Commission
of
South Carolina

Docket No. 2013-13-A
(Year 2013-2014 Proceeding)

DIRECT TESTIMONY
of
JAMES D. HARRIS
for
Chem-Nuclear Systems, LLC

Q. PLEASE STATE YOUR NAME, POSITION AND BUSINESS ADDRESS.

A. My name is James D. Harris. My business address is 740 Osborn Road, Barnwell, South Carolina. I am employed by Chem-Nuclear Systems, LLC (CNS), an *EnergySolutions* company. As Vice President for Barnwell Operations, I am responsible for the safe and proper disposal of low level radioactive waste received at the disposal facility in accordance with the company's South Carolina Radioactive Material License. I am also responsible for management, supervision and administration of disposal operations personnel, equipment and buildings.

Q. PLEASE STATE YOUR EDUCATIONAL BACKGROUND AND PROFESSIONAL EXPERIENCE.

A. I have over 24 years experience in the start-up, operation, and decommissioning of nuclear facilities. I joined *EnergySolutions* in 2001 working as Operations Support/Radiological Safety Manager at the Department of Energy (DOE) Advanced Mixed Waste Treatment Plant in Idaho Falls, ID. During my time there, I was responsible for oversight and management of the field operations, including supervision of 350 employees. My next assignment was Solid Waste Management Facility (SWMF) Manager at the DOE Savannah River Site. As the Facility manager for the SWMF, I was responsible for characterization, transport and final disposition of transuranic waste, low level radioactive waste and mixed low level waste. I regularly interfaced with teaming contractors, management, and multiple subcontractors, and managed a staff of over 200. After that assignment, *EnergySolutions* sent me to Paducah, KY as Project Manager, Material Disposition at the DOE Paducah Remediation Project. I was responsible for the characterization, processing and disposition of 80,000 cubic feet of low level and mixed low level waste. Additionally, I was responsible for the management and oversight of a Kentucky-permitted landfill. In 2011, I

became the Barnwell Processing Facility Manager and was responsible for the management and operations of the fully-licensed radioactive material processing facility located near the Barnwell Disposal Facility.

Q. HAVE YOU PREVIOUSLY PROVIDED TESTIMONY BEFORE THE PUBLIC SERVICE COMMISSION?

A. Yes. I testified before the Public Service Commission two years ago.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. My testimony will provide information to the Commission about the disposal site and facility operations as those matters relate to disposal of low level radioactive waste at the disposal facility located in Barnwell County, South Carolina. I will provide a brief background on the general process we have used in this proceeding for identifying the allowable costs associated with our low level radioactive waste disposal business. I have included an Amended Application for identification of allowable costs as an exhibit to my testimony. I will explain the differences between this Amended Application and the original application we submitted in September 2013. The Amended Application reflects the agreements we reached with the Office of Regulatory Staff (ORS) during their annual audit of our allowable costs.

My testimony will also focus on the principal differences in categories of costs between costs we actually incurred in Fiscal Year 2013-2014 and the estimated costs identified in Commission Order 2013-349. Finally, my testimony will summarize the costs we are requesting the Commission to identify as allowable for Fiscal Year 2013-2014.

Q. PLEASE DESCRIBE THE DISPOSAL SITE.

- A.** Chem-Nuclear (CNS) operates a low level radioactive waste (LLRW) disposal facility located approximately five miles west of the City of Barnwell in Barnwell County, South Carolina. The closest municipality to the disposal site is the Town of Snelling. CNS has operated the disposal site since 1971 continuously with no interruptions or regulatory shutdowns. We are proud of our exemplary safety record.

The disposal site comprises approximately 235 acres of property owned by the State of South Carolina and leased by CNS from the South Carolina Budget and Control Board (SC B&CB). The 235-acre licensed disposal area is divided into different use categories including active trenches, completed trenches, potential trench areas, and ancillary facility, water management and buffer zone areas. Approximately 120 of the 235 acres are completed trenches with enhanced (multi-layer or geo-textile) caps installed.

The disposal site could not be operated successfully without an experienced and talented group of employees. They are critically important to the safe and compliant operation of the disposal site. Many of CNS' employees at the disposal site have been with the company for twenty years or more. Attracting and retaining high quality, well-motivated personnel is an integral part of successful, safe and regulatory compliant disposal of LLRW.

Q. PLEASE DESCRIBE THE DISPOSAL SITE OPERATIONS IN FISCAL YEAR 2012-2013, INCLUDING CHANGES FROM PREVIOUS YEARS' OPERATIONS.

- A.** We continue to operate as an in-compact disposal site, accepting waste from the Atlantic Compact states of South Carolina, New Jersey, and Connecticut only.

Q. PLEASE DESCRIBE BRIEFLY THE STATUTORY AND REGULATORY BACKGROUND FOR CHEM-NUCLEAR’S APPLICATION THAT IS THE SUBJECT OF THIS HEARING.

- A. This is the thirteenth hearing conducted by the Commission in this docket to fulfill its responsibilities under the “Atlantic Interstate Low level Radioactive Waste Compact Implementation Act” of 2000. As required by the Act, the Commission has held formal proceedings annually and published orders after hearings in this docket by which the Commission has identified Chem-Nuclear’s “allowable costs”. By that determination, as provided by the Act, Chem-Nuclear is able to recover costs it incurs for operations in the disposal of low level radioactive waste at its Barnwell site.

Over the previous twelve hearings, and, as the Commission’s orders demonstrate, the Commission has relied on the evidence to make numerous determinations with respect to which of our costs are to be properly considered as “allowable,” and the Commission has consistently refined its decisions on the issues. As a consequence, many of the issues that the parties and the Commission addressed in previous proceedings have been resolved and the orders represent the precedents upon which we have relied in preparing our Amended Application and evidence in this case.

Q. PLEASE EXPLAIN THE GENERAL CONCEPT THAT CHEM-NUCLEAR’S APPLICATION AND EVIDENCE EMBODY IN THIS PROCEEDING.

- A. Our Amended Application and our evidence in this case represent a similar approach to what I understand was used in previous proceedings. That approach incorporates the separation of costs into the three categories that were identified in the Collaborative Review of Chem-Nuclear’s Operations and Efficiency Plan that the Commission approved and which the Commission has directed Chem-Nuclear to use by previous orders in this

Docket. Those three categories are fixed costs, variable costs and irregular costs. Our Amended Application and evidence for Fiscal Year 2012-2013 also reflect the full use of the accounting system the Commission approved in Order 2011-388. That accounting system enables us to capture and track the separated costs as we incur them and incorporate the data effectively in our internal monthly data reports and in our exhibits to the Amended Application and our evidence.

The actual data collected in the three cost categories for Fiscal Year 2012-2013 provide information to adjust the projected costs the Commission identified as allowable in Commission Order 2013-349 to reflect actual operations experience.

Q. PLEASE EXPLAIN THE DIFFERENCES BETWEEN CHEM-NUCLEAR'S APPLICATION AND THE AMENDED APPLICATION PROVIDED AS AN EXHIBIT TO YOUR TESTIMONY.

- A. The principal differences between the original Application and Amended Application were in the Fixed and Irregular Costs for Fiscal Year 2012-2013 and in some proposed costs for Fiscal Year 2013-2014. Actual fixed costs for Fiscal Year 2012-2013 identified in the Original Application were \$3,008,425, and the Company requested an adjustment of \$71,035. Actual fixed costs for Fiscal Year 2012-2013 identified in the Amended Application are \$2,864,976. This reduction is primarily the result of an adjustment in Corporate Allocation (G&A) for Fiscal Year 2012-2013. The initial number included in the original Application incorporated costs that should have been amortized over a period of three (3) years. Once this was identified in the audit, the costs were pulled out and the amortized amount for one year was included. The actual fixed costs for Fiscal Year 2012-2013, identified in the Company's Amended Application, is \$72,414 less than the amount

identified in Commission Order No. 2013-349. Therefore, no adjustment is requested in this category of costs.

Irregular costs in the Amended Application are less than the irregular costs listed in the original application for Fiscal Year 2012-2013. This is due to the removal of Institutional Overage costs. As a result of this removal, Irregular Costs identified in the Amended Application are \$240,438, which is \$49,266 more than the Commission identified in Order No. 2013-349. Therefore, the Company requests an adjustment of \$49,266 in Irregular Costs.

The variable labor and non-labor rates anticipated for five categories of variable costs and the variable material costs for vaults listed in the Amended Application are also the same as those rates in our original application.

The Amended Application includes changes to the proposed costs for Fiscal Year 2013-2014. The changes to Amended Exhibit C are in the Fixed Costs, Irregular Costs, and in the Variable Labor and Non-Labor Rates in the Variable Costs, and were adjusted based on the ORS audit results of the first six months of operating costs for Fiscal Year 2013-2014.

**Q. PLEASE DESCRIBE THE MANNER IN WHICH CHEM-NUCLEAR TREATS
“ALLOWABLE COSTS” UNDER THE REGULATORY PROCESS
ESTABLISHED BY THE ACT?**

- A.** Chem-Nuclear’s method for seeking adjustments to the costs identified by the Commission in its orders is different from the regulatory treatment of other regulated entities. First of all, the Act does not provide for the Commission to determine our revenue requirements, including rate of return, based on a test year, and fix our rates or charges to enable Chem-Nuclear to recover its revenue requirements. The Act empowers the Commission to

identify our “allowable costs,” and we deduct this total (including a statutory margin applied on some costs) from the annual amount paid to the State.

At the end of each fiscal year, we compare the costs we actually incur to operate the site to the costs previously identified as allowable in the Commission’s order for that year. We only use the actual costs incurred as the amount that we request the Commission to identify as allowable in the following proceeding. That means that if we do not actually spend as much as the Commission has allowed for a particular cost category, then we only use the actual amount spent in determining the allowable cost for Chem-Nuclear at the end of the year. If we were to spend more than the identified amount, we apply to the Commission to recover the extra cost in the subsequent fiscal year. Chem-Nuclear sometimes carries costs for a year or more until the Commission rules on our Application to recover them.

Q. PLEASE EXPLAIN HOW THE PROCESS WORKS BY USE OF AN EXAMPLE?

A. Vault cost recovery is a good illustration of the method. Each year the Commission determines variable vault cost rates for standard disposal vaults that are dependent on the number of cubic feet of waste in four classifications received at the site (Class A, Class B, Class C, and Slit Trench waste). That “variable vault cost rate” can be used to forecast the vault costs in the next year, based on the volume of waste received in each category. However, it is difficult to predict accurately by waste classification the volume and mix of waste that will be received in any given year. Therefore, the variable vault cost rate will sometimes forecast a dollar amount for vault costs that is in excess of the actual amount spent. In such cases, the actual amount spent to procure concrete disposal vaults is used to determine Chem-Nuclear’s cost recovery and fee, not the higher amount forecast by the variable vault cost rate. If the situation were reversed, that is, if the vault costs exceeded

the level previously identified by the Commission, Chem-Nuclear would seek to recover the additional amount that we actually spent as part of the application for allowable cost recovery for the subsequent fiscal year in the next year's Commission proceeding.

Q. PLEASE EXPLAIN HOW THE ALLOWABLE PORTION OF CORPORATE GENERAL AND ADMINISTRATIVE (G&A) COSTS IS DETERMINED.

- A.** There are three components to the Corporate G&A Costs identified in our application. These components and their respective allocation methods are: Corporate SG&A (total cost basis), Corporate Information Systems (IS) allocation (based on a "head count" or the number of employees assigned to each business unit), and Columbia SG&A allocation (based on the number of disposal site personnel located in the company's Columbia, SC offices). The Office of Regulatory Staff again conducted a detailed audit of the pool of costs that formed the basis for CNS' G&A allocation to identify costs that were allowable and costs that were unallowable under the statute.

Q. WHAT ALLOWABLE COSTS ARE INCLUDED IN G&A?

- A.** Corporate SG&A costs are allocated to each business unit on a total cost basis. The pool of costs that forms the basis for the Corporate SG&A Allocation includes costs for Corporate Executive Management and Support, Contracts and Finance, Contracts Legal Support, Human Resources Corporate Support, Accounting Corporate Support, and Regulatory Affairs and Environmental, Safety, Health and Quality Assurance Corporate Support.

The Corporate IS costs are allocated based on the "head count" or number of employees assigned to each business unit. Columbia SG&A costs are allocated to business units based on the number of each respective business unit's employees located in the company's Columbia, SC office. The total allowable Corporate G&A allocation for Fiscal Year 2012-2013 was \$527,587.

Q. PLEASE DESCRIBE THE ALLOWABLE COSTS INCURRED IN FISCAL YEAR 2012-2013 AND COMPARE THOSE COSTS TO THE AMOUNTS IDENTIFIED IN COMMISSION ORDER 2013-349.

- A. This part of my testimony will focus on the principal differences in categories of costs between actual costs incurred in Fiscal Year 2012-2013 and the costs identified in Commission Order No. 2013-349. We are requesting adjustments to the Variable Vault Costs, Irregular Costs, and Variable Vault Costs incurred in Fiscal Year 2011-2012.

Fixed Costs

Actual Fixed Costs incurred in Fiscal Year 2012-2013 were \$72,414 less than the Fixed Costs identified in Commission Order No. 2013-349. Chem-Nuclear requests no adjustment in this category of costs.

Variable Costs

Variable Costs consist of two parts. I will discuss Variable Labor and Non-Labor Costs and then Variable Material Costs for the concrete disposal vaults (Variable Vault Costs).

Variable Labor and Non-Labor Costs

The actual Variable Labor and Non-Labor costs experienced in the disposal of waste in Fiscal Year 2013-2014 resulted in a Total Variable Labor and Non-Labor Cost of \$123,917.27. This amount is \$10,386.09 less than the amount that would have been anticipated based on rates provided in Commission Order No. 2013-349. Chem-Nuclear requests no adjustment in this category of costs.

Variable Material (Vault) Costs

The amount of actual Variable Material (Vault) Costs incurred in Fiscal Year 2012-2013 for standard disposal vaults were \$115,052 more than the amount calculated using rates identified in Commission Order No. 2013-349. This is primarily due to the purchase of

vaults in early 2013. The vault manufacturer advised the Company that they would be closing their Barnwell production facility and moving the work to their facility near Charleston. This would result in much greater transportation costs when the vaults were shipped to the Barnwell disposal site. The order for vaults was placed after consideration of how many vaults would be needed to complete the 2012-2013 fiscal year based on projected waste volumes. As the 2012-2013 fiscal year ended there were vaults that were paid for in Fiscal Year 2012-2013, but were not used due to the types of waste volume actually received (as compared to waste projected at the time of the vault purchase). Those vaults have been used in the 2013-2014 fiscal year. Chem-Nuclear requests that the Commission approve the actual cost of \$485,728.64 as the allowable cost for Variable Material (Vault) Costs for Fiscal Year 2012-2013.

Irregular Costs

Not all Irregular Costs for the year are known at the time a Commission order is issued. Irregular Costs are costs incurred for projects that may not occur each year or projects that occur each year but with varying costs. Each year Irregular Cost projects with varying costs include trench construction, site engineering and drawing updates, and other site construction projects. Examples of projects that may not recur each year are irregular component disposal, site assessments and license renewal proceedings and hearings. Total Irregular Costs incurred for Fiscal Year 2012-2013 were \$240,438 compared to the amount identified in Commission Order No. 2013-349 of \$191,172. Chem-Nuclear is requesting an adjustment in Irregular Costs of \$49,266, of which \$40,157 is for Severance/Incentive costs.

Q. PLEASE DESCRIBE THE COSTS PROPOSED FOR FISCAL YEAR 2013-2014.

- A. The costs proposed for Fiscal Year 2013-2014 are summarized in Amended Exhibit C. Disposal operations in Fiscal Year 2013-2014 will continue to reflect smaller routine volume disposal site operations because the disposal site will continue to accept only waste from the three Atlantic Compact states.

Proposed Fixed Costs

The fixed labor costs (labor and fringe costs) proposed for Fiscal Year 2013-2014 and non-labor fixed costs proposed are based on actual fixed labor costs incurred in Fiscal Year 2012-2013 as shown in the Amended Application. Insurance costs proposed for Fiscal Year 2013-2014 are based on costs incurred during the first six months of the year projected forward to the anticipated insurance premium costs for the year.

Legal expenses are anticipated to be continuing because of the license renewal appeal process and other legal matters.

Total fixed costs proposed for Fiscal Year 2013-2014 are \$3,319,732.

Proposed Irregular Costs

As discussed earlier, not all irregular costs were known at the time the application was submitted. The irregular costs identified in Amended Exhibit C are based on costs incurred during the first half of Fiscal Year 2013-2014 and activities expected in the second half of the Fiscal Year. A total of \$233,250 in various irregular project costs is summarized in Amended Exhibit C to our application.

Proposed Variable Labor and Non-Labor Cost Rates

In the Original Application, the variable labor and non-labor cost rates proposed for Fiscal Year 2011-2012 are based on rates identified in Commission Order 2013-349 plus a nominal inflation rate. The Amended Application is unchanged.

Proposed Variable Material (Vault) Cost Rates

Rates for concrete disposal vaults are calculated based on the volume of each waste classification disposed and the cost of vaults used for disposal of that waste. The actual volume of waste in each type of disposal vault, of course, depends on a number of other factors including the size, shape and material composition of waste packages received, dose rates measured on the waste packages received, and the mix of waste received between the various waste classifications. The variable cost rate for concrete disposal vaults is expressed in dollars per cubic foot of each major classification of waste (Class A, Class B, Class C, and Slit Trench waste).

The Amended Application (Amended Exhibit C) provides variable cost rates for concrete disposal vaults expressed in dollars per cubic foot of each major classification of waste (Class A, Class B, Class C, and Slit Trench waste). The rates provided in Amended Exhibit C are based on rates identified in Commission Order 2013-349 with a nominal inflation rate.

Q. DOES THAT CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes it does.